

## Major Depressive Disorder: A Condition That Frequently Co-Occurs with PTSD

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An important consideration in understanding posttraumatic stress disorder (PTSD) is its frequent co-occurrence with other psychiatric disorders. Population-based surveys of individuals who have been diagnosed with PTSD show that these persons have rates of 62% to 92% of other types of psychological disorders. In a major study of veterans who had served in Viet Nam (Kulka et al. 1990), 99% suffered from another psychiatric disorder. While disorders such as panic disorder, other anxiety disorders, and substance abuse and dependence frequently co-occur with PTSD, the disorder that most commonly co-occurs is major depressive disorder. In the National Comorbidity Survey (Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995), a major study investigating the prevalence of different types of psychiatric disorder in the United States, major depressive disorder was found to co-occur with PTSD in almost one-half of cases. Among men with PTSD, 47.9% had co-occurring major depression; among women 48.5% of those with PTSD also suffered from major depression.

Some observers suggest that it is not surprising that so many people who are diagnosed with PTSD also meet criteria for a diagnosis of major depression because many of the symptoms for both disorders overlap. For example, a number of symptoms of PTSD, such as diminished interest in previously enjoyed activities, problems with sleep, restricted range of emotions, and difficulty with concentration, are the same symptoms that commonly occur in depression. Some researchers have even suggested that one dimension of PTSD might be called a depressive cluster.

Until recent years, the role played by trauma exposure has not been central in the study of major depressive disorder. A number of studies, e.g., Burnam et al. (1988), Cascardi, O'Leary, & Schlee (1999), however, have shown that exposure to trauma is a risk factor not only for PTSD but also for major depression. One study of depressed elderly patients that included a short screen for PTSD found that 42% of these depressed patients also had PTSD. In a two-site study of depression treatments, DeRubeis and colleagues (2005) found that 17% of their study participants also had PTSD.

The relationship between PTSD and major depression is beginning to be clarified, particularly with regard to the way that exposure to trauma relates to these disorders both jointly and individually. The National Comorbidity Survey (cited above) found that, based on retrospective data, PTSD usually came first. Some studies (Koenen et al., 2002) showed that major depression was a risk factor for the later development of PTSD while other studies (Breslau et al., 2000) indicated that PTSD was a risk factor for later

depression. Researchers who have looked closely at the relationship between PTSD and major depressive disorder think that the tendency to develop both disorders most likely indicates a joint vulnerability with regard to trauma exposure. This means that individuals who develop major depression in response to trauma are essentially the same subset of people who also develop PTSD. Trauma exposure without PTSD is not associated with higher rates of depression, although O'Donnell and colleagues (2004) found some evidence for a "depression only" response within the first three months after exposure to trauma. This suggests that there are two different groups of individuals, those who develop depression alone in response to trauma exposure and those who develop both depression plus PTSD.

A few studies have explored the effect of PTSD in the treatment of depression. In one (Papakostas et al., 2003), there were no outcome differences between depressed patients with and without PTSD who were treated for six months with an antidepressant medication. In a study by Tucker and colleagues (2004), both depressed patients with PTSD and those with only depression and no PTSD responded to another type of antidepressant. By contrast, Hollon and colleagues (2005) examined the impact of PTSD in the treatment of major depressive disorder using antidepressant medication or cognitive psychotherapy and found that the patients who had PTSD as well as depression had a lower probability of response to depression treatment during the continuation phase, i.e., the phase of treatment that follows the acute phase. In a study conducted by Hegel et al. (2005), patients with depression and PTSD showed a more delayed response to depression treatment relative to patients with depression alone.

In a study of low-income, predominantly minority women who were recruited for a depression treatment trial, 33% were found to have current co-occurring PTSD (Green et al., 2006). These women were randomly assigned to cognitive behavior therapy, antidepressant medication, or community mental health referral. This provided an opportunity to determine whether depression treatments differed in their outcomes for patients who had depression alone or depression and co-occurring PTSD. The outcomes showed that depression improved in both groups over the course of one year. However, the group that had both depression and PTSD had higher levels of distress and they were more impaired in their functioning throughout the course of the study. A question that was raised about this is whether direct treatment of PTSD that was associated with the interpersonal violence that these study subjects had experienced might be more effective in alleviating depression in those individuals who suffered from both PTSD and depression.

Since major depressive disorder co-occurs so frequently with PTSD, some treatment outcome studies focusing on PTSD also measure the effects of a given intervention on depression. For example, in a study of 36 women treated with cognitive processing therapy for rape victims, Resick and Schnicke (1996) reported that 22 of these women also met diagnostic criteria for major depressive disorder. Following group therapy for PTSD, only five of these women still met criteria for major depression. At a six-month follow-up, three of the research participants met criteria for depression. In Krupnick et al.'s (2008) study of group interpersonal psychotherapy for low-income women with PTSD, 15 out of 48 research participants met criteria for major depression at their first assessment. After receiving treatment, only five out of fifteen depressed women still met criteria for that disorder. By contrast, five women in the control group (who did not receive psychotherapy) who met criteria for depression at the beginning of the study still met criteria for this disorder when they were re-assessed four months later. Thus, trauma-focused treatments that focused on PTSD also proved beneficial in the treatment of depression. Neither of these studies looked at the outcomes of patients with co-occurring depression versus no depression, so we do not know if PTSD outcomes were different for those who had PTSD alone versus those who had depression as well.

In summary, there is a strong likelihood that individuals who develop PTSD following exposure to a trauma will also develop major depression. As is the case with any psychiatric condition, co-occurring illnesses make the condition more complex, and probably more difficult to treat. Nevertheless, there is good evidence, both in treatment outcome studies for PTSD that also measure occurrence of and changes in co-existing depression, as well as in treatment studies that focus on depression, that psychotherapy and, in the case of depression treatment, antidepressant medication can be helpful in alleviating the symptoms of this painful illness.

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